



Architecture & Engineering Design II – Puzzle Cubes

The A&E D II students are first designing a puzzle cube using wooden blocks. The students are to create a set of working drawings of each piece, and an isometric view of the assembled cube which is the solution to the puzzle.

In this PBL, students will work in pairs to design their cube. The cube is to have 3 – 5 pieces, each a different color. Students will sketch each piece in orthographic projection and in isometric view. And model the pieces in 3D in CAD. The students are to construct the puzzle cube and a unique box to put the cube in.

Students will also benefit from this puzzle cube PBL in many other ways. Some of these benefits are as follows:

1. To create a puzzle cube, one must remember shapes and patterns created and this activates memory and builds capacity in the brain to store information.
2. Similar to chess, one must study different ways to solve the puzzle cube. This activates spatial learning while helping them understand different circumstances within that space.
3. This also builds on patience, attention to detail, and perseverance to name a few others.

